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or
Mrs. BELLAIRS, Phone 41-3535, 478 Victoria
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OUR COVER

Our interested viewers appear
puzzled as to the means by which
so much is packed into so little. The
unit is one of the Collins Line which,
along with many other similar types,
has done much to make popular the
transceiver type of equipment.

FEDERAL COMMENT

★

THE AMATEURS' ROLE IN CIVIL DEFENCE

Before World War II, the Amateur provided the backstay when
emergency communications were required. After the war, the Amateur
was instrumental in aiding the establishment and training of commu-
nication groups in a number of volunteer organisations.

As these organisations progressed and State Instrumentalities set up
and expanded their own communications services, the Amateur's role
appeared to become less important; however, when the Civil Defence
School was established at Mount Macedon, Victoria, investigations by
communications study groups soon revealed that the Amateur still had a
very important role to play in the early stages of any emergency.

Many Amateurs have passed through the School as representatives of
either the W.I.A. or organisations employing them. The importance of
this training to the community is inestimable.

The recognition the Government has accorded W.I.A. representatives
in this important work is both gratifying and significant.

Each State Premier's Office is allotted a quota for each study group
or course. The W.I.A. has always been invited to nominate members for
inclusion in the contingent. These study groups embrace every aspect of
civil emergency work, and thus representatives of every section of the
community take part in general discussions; however, specialised studies
or courses are held in every field. In these cases every organisation
interested in the particular subject is represented.

All that is asked for participants is that they spread the knowledge and
experience gained amongst their fellow citizens. In the case of W.I.A.
representatives, dissemination is via W.I.C.E.N., the object being to ensure
that a maximum number of skilled personnel will be ready to meet any
emergency.

Amateurs willing to help in this work should advise their Divisional
W.I.C.E.N. Co-ordinator who will arrange for their names to be added to
the list of nominees to be forwarded to the Premier's Office. The success
of W.I.C.E.N. depends entirely upon the enthusiasm of members.

As an example, the Victorian W.I.C.E.N. group are to participate in
a large scale exercise this month. The success of this exercise from an
Institute viewpoint is important from the accorded status, but even more
so from the aspect of the practical application of the Amateur's knowledge
of communications.

FEDERAL EXECUTIVE, W.I.A.

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AN S.S.B. TRANSCEIVER FOR 52 Mc.

I. F. BERWICK,* VK3ALZ

A comparison of the block layout for the 52 Mc. Transceiver (Fig. 1) with the original circuit of the PT118 shows that four additional major components are required:—

1. A 48 Mc. v.f.o.
2. A 4 Mc. crystal filter.
3. A solid state d.s.b. generator.
4. If mobile operation is intended, a new power supply.

Each of these components is built and aligned as a separate sub-assembly. The order in which they are made is of no consequence and can be done according to availability of components, etc. Be prepared to devote quite a few man-hours to each of these assemblies.

Notes on the circuitry, layout and alignment of each sub-assembly appear later, plus diagrams.

• The author has converted a Pye Reporter PT116 to a 52 Mc. S.s.b. Transceiver. A conversion for any other frequency from 3.5 to 144 Mc. is equally possible.

3. Convert Receiver front-end to 52 Mc. This is done as follows:—

(a) Remove coil assembly of L2, L3, L4, re-wind coils with 8 turns 18 B. & S. enamel, wind 2-turn link at cold end of L3. Tap L4 at 7 turns. Replace assembly.

(b) Remove and re-wind L1 with 9 turns 18 B. & S. enamel. Tap at $\frac{1}{2}$ turns. Replace L1.

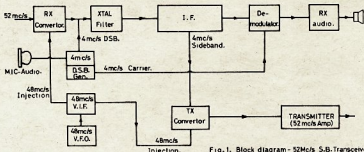


Fig. 1. Block diagram—52Mc/s S.B. Transceiver.

(c) L1, L2, L4 are now grid dipped at 52 Mc. L3 at 48 Mc.

(d) Wire in modifications to receiver audio circuitry.

(e) Mount crystal filter in can of IFT1 and instal in position on chassis.

(f) Fit d.s.b. generator and RL2, RL3 in power supply compartment. A shield partition is fitted to isolate this compartment from the main chassis.

(g) Fit socket for QQCO4/15—a local type. This has to be lowered approx. 1" below chassis to accommodate the

tube. The original shield across the socket will have to be modified to achieve this—additional shielding is added to completely isolate the p.a. tank.

The p.a. loading capacitor, an A.W.A. concentric trimmer with screw-driver adjustment, is mounted on the side wall in the p.a. tank compartment. Wind and instal new p.a. coil and loading (link) coil.

Fit a shim brass shield across underneath chassis as shown in Fig. 2.

Mount connectors for mic. input, v.f.o. input, and antenna.

Complete wiring of Reporter unit—running all supply wiring in shielded cable.

Refer to drawings for layout of various components (Figs. 3 and 4).

CRYSTAL FILTER ALIGNMENT

The performance of the transceiver is critically dependent on this component. I include in some detail two alternative alignment procedures.

Method 1 is the more speedy and accurate method. The test set-up is as per Fig. 5.

With this set-up the filter response curve is viewed directly on the c.r.o. screen. See Fig. 6.

It is now a comparatively simple matter to correctly align the filter.

TR3 and TR4 (Fig. 7) should be resonated at 4 Mc. If the camel hump is not now symmetrical, TR4 should be detuned from resonance slightly, either higher or lower until symmetry is achieved.

R should now be varied to try and further improve the response curve—47K to 39K should give a satisfactory result.

If it is desired to measure the pass bandwidth proceed as in Method 2.

If a satisfactory response cannot be obtained, check that IFT1 is correctly tuned. If still unsatisfactory, filter will have to be re-built. Proceed as follows:

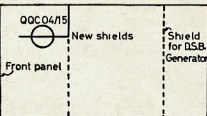


Fig. 2.—Position of New Shields.

The major assembly is the Pye Reporter unit. This is converted as follows:

1. Remove all redundant components and wiring—compare the new circuit with the old for this operation. The following components are redundant:—

- (a) Vibrator power supply.
 - (b) IFT3.
 - (c) IFT1—the can is saved for crystal filter.
 - (d) Mike transformer.
 - (e) Socket of V10 and its grid wiring.
 - (f) Terminal strip for carbon microphone
 - (g) Terminal strip for crystal oscillator V4 and crystal oscillator V12—also crystal sockets.
2. Convert IFT2, IFT4, IFT5 to 4 Mc. Remove 100 pF. across each winding and replace with 33 pF. Then replace IFT2, IFT4, IFT5.

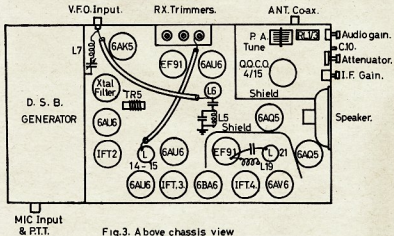


Fig. 3. Above chassis view

* 107 Loongarra Avenue, Glenroy, Vic.

Dismantle filter, check pole-zero spacing of each crystal. Measure pole frequencies. There should be two f_1 crystals (± 50 c.p.s.) and two f_2 crystals, where $f_1 \approx f_2$ = pole-zero spacing.

If not, crystals will have to be shifted around until this is so—either by etching or grinding. Frequency can be lowered if desired by rubbing a little solder onto the quartz. Re-build filter when crystals are OK and repeat alignment procedure.

For the average FT243 filter a response of 3 kc. at 6 db. down and 12 kc. at 60 db. is considered satisfactory with passband ripple not exceeding 3 db.

Method 2: Test set-up as per Fig. 8. Proceed as follows:

(1) Assuming d.s.b. has been previously aligned, insert carrier by unbalancing VR1 (Fig. 16, d.s.b. gen.)—a smooth stripe should appear on c.r.o. screen (audio generator should be off). Peak TR3, TR4 for maximum stripe width.

(2) Remove carrier, inject audio signal (1,000 c.p.s.) If filter correct a nearly smooth stripe should appear. If not, carrier and/or unwanted sideband are present, as Fig. 9.



FIG. 6

It is now possible to measure (a) the pass-band response by plotting stripe height in inches or volts (if the c.r.o. is calibrated) against frequency, using $db. = 20 \log E_1 / E_2$, where E_1 is the maximum stripe height; (b) the stop-band response by plotting stripe ripple against frequency, using $db. = 20 \log E_1 / E_2$, where E_1 and E_2 are as in Fig. 10.

When a picture of the response curve is obtained by this method, the necessary adjustment of TR4 and R can be made to complete the alignment of the filter.

In this discussion no mention has been made of the frequency of the carrier crystal relative to the filter. In v.h.f. it is usual to use upper sideband.

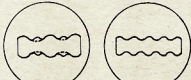


FIG. 9A 1 Sideband + carrier

FIG. 9B 2 Sidebands no carrier

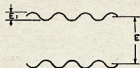


FIG. 10.

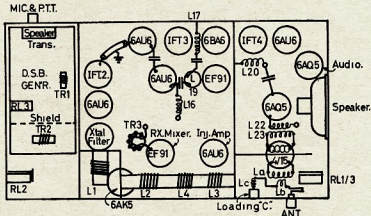
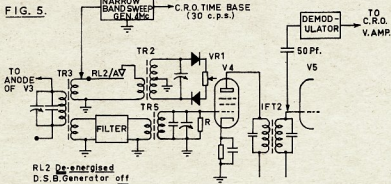


Fig. 4. Under chassis view.



RL2 De-energised
D.S.B. Generator off

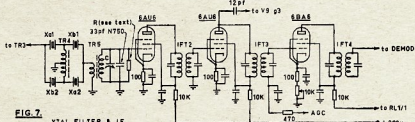


FIG. 7.

All by-passes 22K pF. unless otherwise stated.

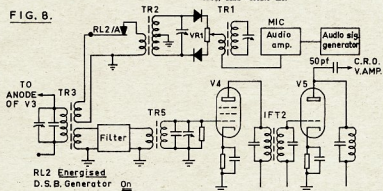
C—Philips trimmer.

TR4—18 turns 18 B. & S. enamel on Q2 toroid (Ducon).

TR5—Primary: 4 turns 18 B. & S. enamel; toroid. Secondary: 14 turns 14 B. & S. on Q2.

Xal, Xa2—4000.0 kc.
Xb1, Xb2—4002.0 kc.

FIG. 8.



RL2 Energised
D.S.B. Generator On

It is the practice, therefore, to set the carrier frequency 20 db. down the i.f. skirt of the filter.

This occurs usually when the pole of the carrier crystal is approx. 400 c.p.s. lower than the pole of the i.f. crystals in the filter.

The carrier crystal should be ground to this frequency (i.e. $f_c - 400$) and the alignment as described carried out.

If the tests indicate that a shift in carrier crystal is desirable, this may be done at any time after the alignment of the filter.

Alignment Pictures

Method 1—Fig. 11:

- A—TR4 not correctly tuned, unsymmetrical, hump, stop-band pop-up.
- B—TR4 tuned too far in other direction.
- C—TR4 correctly tuned, but R too large.
- D—Correct response, TR4 OK, R OK.



FIG 11A



FIG 11B



FIG 11C



FIG 11D

Method 2—Fig. 12:

- A—Smooth stripe, carrier only.
- B—1,500 c.p.s. sideband, ref. level 0 db., suppression of unwanted sideband \approx 25 db., carrier suppression 50 db.
- C—500 c.p.s. sideband, ref. level -6 db., s.b. suppression \approx 10 db., carrier suppression 50 db.
- D—3,000 c.p.s. sideband, ref. level -8 db., s.b. suppression 35 db., carrier suppression 50 db.



FIG 12A



FIG 12B



FIG 12C



FIG 12D

V.I.F.s.

I propose to make a few remarks introductory to this important subject. I hope to make a further discussion at a later date in connection with a 144 Mc. s.b. transceiver I am developing.

A v.i.f. (variable i.f.) is a device which passes a signal tuneable over a specified range without appreciable attenuation, but highly attenuates all other signals outside this range.

Spurious signals from the injection sources which fall in the v.i.f. and pass through unattenuated are called cross-overs. A very important aspect of v.i.f. design is reduction of cross-over energy. V.i.f.s. may be divided into four basic types—

- (1) Mechanically or electrically ganged to v.f.o.
- (2) Bandpass.
- (1) and (2) are further sub-divided into (a) injection v.i.f., (b) signal (or s.b.) v.i.f.

I have used type 2a in my transceiver.

I state without proof the rules for v.i.f. design—

- (1) V.i.f. tuning range (or bandwidth) should be minimal contingent upon other design factors, e.g. 200 kc.
- (2) The amplitude of a spurious cross-over is an inverse function of its order. Therefore spurious cross-overs should be of high order.

Example: If $f_{VIF} = f_{VFO} + N f_{XTAL}$ and $f_{SP} = f_{VIF}$, where $f_{SP} = R f_{VFO} - S f_{XTAL}$, f_{SP} is said to be of order $R + S$ if small energy at f_{SP} . ($R + S$) should be large. Note: R, S, N are integers.

$$\left. \begin{aligned} (3) \quad & f_{VIF} \div f_{VFO} \\ & f_{VIF} \div N f_{XTAL} \\ & N f_{XTAL} \div f_{VFO} \end{aligned} \right\} \begin{array}{l} \text{Should not be} \\ \text{integers, or if} \\ \text{integers, should} \\ \text{be large, i.e. } > 3. \end{array}$$

Readers requiring further information at this stage should consult Collins S.B. Handbook.

It will be seen that in my transceiver tuning range is somewhat greater than is customary, but choice of v.i.f., v.f.o. and crystal are good so that this factor is less serious than it might have been.

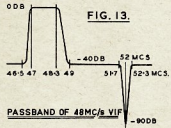


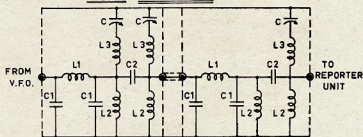
FIG. 13.

Fig. 13 shows the pass-band characteristic of the 48 Mc. v.i.f. This v.i.f. consists of two low pass constant K sections, cut-off 49 Mc., plus two high pass constant K sections, cut-off 48.5 Mc., plus shunt traps to give a notch at 52 Mc. (See Fig. 14.)

52 Mc. TX SECTION

This is explained by reference to the circuit of Fig. 15. A top coupled filter is used between 6A6 mixer and EF91 class A. This, in conjunction with an absorption trap, prevents the 48 Mc.

FIG. 14. 48 MC/s V.I.F.



- C—3-30 pF. Philips trimmer.
- C1—50 pF. ceramic.
- C2—33 pF. ceramic.
- L1—3 turns 16 g. tinned copper, spaced wire diameter. 1/2 inch diam.
- L2—4 turns, ditto.
- L3—9 turns 18 B. & S. enamel, close spaced. 1/2 inch diameter. All coils self supporting.

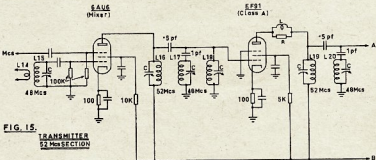


FIG. 15. TRANSMITTER 52 Mc. SECTION

- All by-passes 14 pF. ceramic unless otherwise specified.
- C—3-30 pF. Philips trimmer.
- CN—Philips trimmer, cut down to two plates (1 fixed, 1 moving).
- R, L—5 turns 22 B. & S. wound on 47 ohm 1/4-watt carbon resistor.
- LA—10 turns 14 g. tinned, 3/8 inch diam. c.t.
- LB—2 turns 14 g. tinned, 1/2 inch diam.
- LC—4 turns 10 g. enamel, 3/8 inch diam.

Alignment of this section is straightforward. All tanks are grid-dipped to the appropriate frequencies. Neutralise the 6AQ5 according to accepted practice, peak the 52 Mc. coils for maximum drive at 52.5 Mc., adjust the traps for minimum 48 Mc. feedthrough, and carry out linearity checks of the final according to the approved procedure.

D.S.B. GENERATOR

The active components in this section are solid state to save space, and simplify the mechanical considerations. The complete unit is wired on a matrix board which fits neatly in the space vacated by the power supply. All information necessary for its construction is given in Fig. 16.

The diodes should be selected so that their forward resistances are approxi-

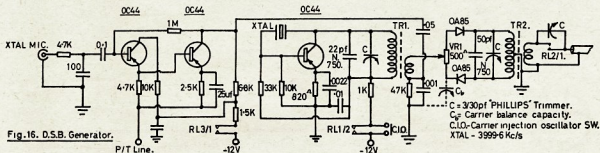
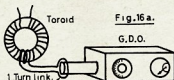


Fig.16. D.S.B. Generator.

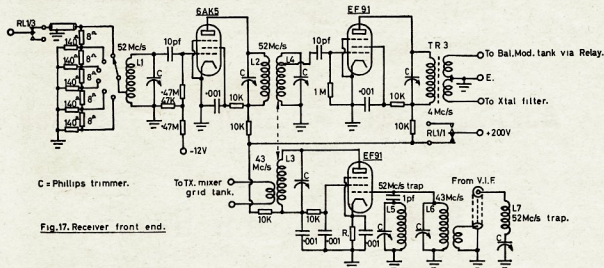
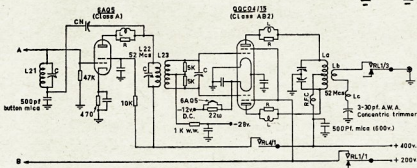


Fig.17. Receiver front end.



mately matched. Diodes having low forward resistance are preferable.

Alignment: (1) Check preamplifier for gain and linearity with c.r.o. and audio sig.-gen. Gain should be 25-30 db, which is more than adequate for most crystal microphones. Since only a few several hundred millivolts are required to drive the balanced modulator, gain can be reduced by lowering the value of the negative feedback resistor.

(2) Grid-dip carrier oscillator and bal. mod. toroid TR1 and TR2 at 4 Mc. Note: Toroids have no external field. Use set-up shown for grid-dipping in Fig. 16A.

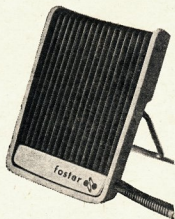
Check carrier oscillator frequency and output. Approx. 1.5v. r.m.s. should appear across secondary of carrier oscillator tank (TR1).

Fig. 16 Parts List

- TR1-Primary: 14 turns 14 B. & S.; secondary:
4 turns 18 B. & S.
TR2-Primary: 14 turns 14 B. & S. c.t.; sec-
ondary: 4 turns 18 B. & S. Both TR1
and TR2 on Q2 toroids (Ducan).

Fig. 17 Parts List

- All by-passes are 1K pF. ceramic.
C—Phillips trimmer.
R1—8 ohms, carbon.
R2—140 ohms, carbon.
L1—9 turns 16 B. & S., tapped 1.5 turns.
L2, L3, L4—8 turns 18 B. & S. L4 tapped at
7 turns. Wind two-turn link at cold
end of L3.
TR3—Primary: 14 turns 14 B. & S.; Secondary:
1 and 2: 14 turns 18 B. & S. each. Core
Q2, toroid.



DF-2

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Check carrier balance, the potentiometer is the coarse balance control and the capacitor the fine control. It will be necessary to find by experiment across which arm of the balanced modulator the capacitor should be placed. 40 db. carrier suppression should be achieved without difficulty. (Remember that a further carrier attenuation occurs in the filter.)

Check double sideband output in the receiver or c.r.o. for intermodulation distortion. Linearity should be satisfactory if the operating conditions for diode balanced modulators are adhered to.

RECEIVER FRONT-END

Concurrent with modern practice, a stepped attenuator is incorporated. This is mounted on the front panel. The speaker transformer has to be shifted to the rear side wall to make room for this. The 48 Mc. injection amplifier 6AU6 runs all the time. The h.t. to

tion is injected into the i.f. after the mixer.

This is achieved as follows: When RL2 is de-energised during receive, thus removing the load from the bal. mod. tank, the balanced modulator becomes unbalanced. A Philips trimmer wired across the contacts of RL2 provides a means of adjusting the level of carrier injected into the i.f.

Carrier derived a.g.c. is shown on the circuit (Fig. 18). An audio derived a.g.c. system on a matrix board sub-assembly is available for fitting, this is not shown as most people seem to have their own preferences with respect to a.g.c. systems.

48 Mc. V.F.O.

This is constructed as an outboard unit designed for mounting on the steering column of a motor vehicle. The 5 Mc. v.f.o. is a modified Command unit. The heterodyning section and the 48 Mc. v.i.f. are mounted in separate

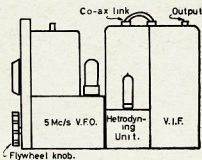


Fig. 19. 48Mc/s V.F.O. (side view)

shielded compartments at the rear of the modified Command unit. (See Fig. 19.)

The modification to the Command unit is as follows:—

- (1) Remove all wiring under chassis.
 - (2) Remove front panel, disconnect bowden drive to oscillator capacitor.
 - (3) Cut through chassis in a line with front of oscillator capacitor.
 - (4) Mount front panel on the oscillator portion of the chassis so that the tuning gears line up with the oscillator capacitor drive gear.
 - (5) Wire up as per circuit (Fig. 20). The oscillator is a Franklin followed by a cathode follower and then a class A tuned stage.
 - (6) Fit a large flywheel tuning knob.
- The construction of the heterodyning unit and v.i.f. is straightforward and the diagrams should be self explanatory. Note that these stages run all the time.

(Continued on Page 8)

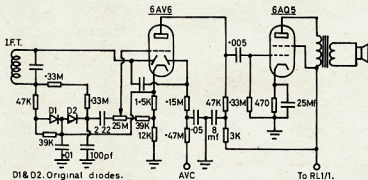


Fig. 18. Receiver noise limiter - demodulator & audio amplifier.

the 6AK5 and EF91 is removed by RL1/1 during transmit, so disabling these stages. See Fig. 17.

The first two i.f. stages run at constant gain at all times. The third i.f. stage has both manual and automatic gain control.

The manual gain potentiometer is mounted on the front panel as follows: Remove top right hand speaker mounting screw, drill a 3/8-inch clearance hole, using the old mounting hole as centre. Mount miniature 10K potentiometer in this hole.

NOISE LIMITER, DEMODULATOR AND AUDIO AMPLIFIERS

This section (Fig. 18) is largely unchanged from the original Reporter circuitry. Carrier for s.b. demodula-

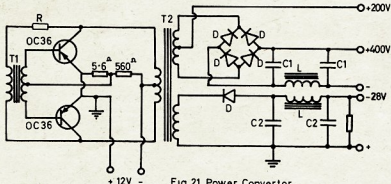


Fig. 21. Power Converter.

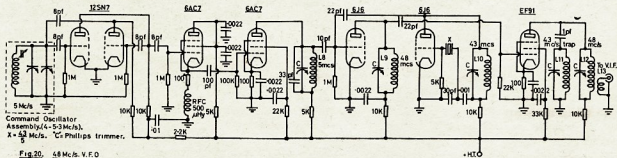


Fig. 20. 48 Mc/s V.F.O.

FURTHER NOTES ON WINDING TRANSFORMERS

In his article, "Re-winding Transformer" ("A.R." Sept. 1964), Ian Phillips has stated a way to determine the turns per volt of the windings. I do not wish to be unkind, but his method is misleading.

The turns of a 5 or 6.3 volt winding are not necessarily a multiple of 5 or 6 respectively. A power transformer is designed to give correct heater voltages on load (all windings normally fully loaded).

The following factors are taken into account to arrive at t.p.v.:—

- Flux density (core loss),
 - Wire gauges (copper loss),
 - Increase in wire resistance with temperature rise,
 - The final estimated working temperature above ambient.
- These determine the transformer "regulation".

A typical design of about 100 to 150 watts rating would probably use a core of the E and I waste-free type, either a 1 1/2" centre leg and 2" stack, or 1 1/2" centre leg and 1 1/2" stack. Core material is a matter of size and temperature rise, and can vary accordingly.

However, to get to the point, the heater winding voltages off load and therefore the turns depend on the factors stated earlier. This may be seen from the figures given in Table 1, and the same applies to other core sizes and areas.

Core Leg X Stack (Inches)	Approx. Net Area (Sq. In.)	T.P.V. for Flux in Kgausses*		
		10	11	12
1 1/2 x 1 1/2	2.1	3.3	3	2.75
1 1/2 x 2	2.3	3	2.75	2.5
Turns 5v. wdg.	→ 2.1	18 (5.46)	16 (5.32)	15 (5.46)
Turns 6.3v. wdg.	→ 2.1	22 (6.67)	20 (6.68)	19 (6.9)

Table 1.

Figures in brackets are typical "off-load" voltages.

* Multiply by 6.45 for K lines/sq. in.

It will be seen that a winding of 18 turns could be a 5v. or 19 turns a 6.3v. winding. Therefore, with a faulty transformer, it is a little difficult, if not impossible, to arrive at the t.p.v. If not faulty, the turns of the heater winding divided by the off-load volts will give the t.p.v. provided the correct voltage is applied to the primary, and the meter is reasonably accurate. (All secondary windings unloaded.)

The only other way is to assume a normally used flux density, e.g. 11 Kgausses or approx. 70,000 lines, and the t.p.v. is near enough to 6.8 divided by the cross-section area in square inches as measured with a rule. This gives you a fair chance of being "near the mark" or can be used for a complete re-wind.

—Andy Roudie, VK3UJ.

S.S.B. TRANSCEIVER

(Continued from Page 7)

POWER CONVERTER

A suitable power unit is shown in Fig. 21.

T1: primary 100 turns of 22 B. & S. secondary 50 turns c.t. of 22 B. & S. Core: Ducon Q1 toroid.

T2: primary 62 turns c.t., 16 B. & S. secondary (1), 600 turns c.t., 26 B. & S.; secondary (2), 100 turns, 26 B. & S. Core: Permalloy C core, 100 v.a. rating. Note: Core from APX-1.

A suitable control unit is shown in Fig. 22.

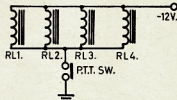


Fig. 22. Control circuit.

CONCLUSION

A complete transceiver has been described. Enough information has been presented to enable a transceiver to be designed for any frequency—3.5 to 144 Mc.—using Reporter components.

By building one's own along the lines indicated, it is possible to enjoy the advantages of transceiver operation at a small fraction of the cost of commercial units.

Finally I am indebted to VKs 3AHL, 3ADF and 3CZC for numerous suggestions which have proved invaluable during the development of this unit. ●



D.X.C.C. CONTEST

"All the DX you can work in a year" is the object of the First Annual D.X.C.C. Contest being sponsored by the Long Island DX Association in order to stimulate DX activity throughout the world.

The Contest will begin at 0001 G.M.T., 1st January, 1965, and end at 0009 G.M.T., 31st December, 1965. Contestants will be required to work as many different countries over 100 as possible in order to be eligible for the special prizes which will be offered by the L.I.D.X.A. As a mode and any band may be used but just one confirmation from each country will count. The Contest will be based on A.R.R.L. D.X.C.C. rules and the A.S.R.L. Countries List will be followed.

The prizes to be awarded to the winners include the Long Island DX Association Trophy, going to the top scorer in the world; six unique trophies, one to be awarded to the top scorer on each of the six continents; and individual certificates to be awarded to the top scorers in each country from which entries are submitted as well as winners in each of the U.S.A., Canadian and Australian districts.

At the close of the Contest, participants will be required to submit just their list of confirmed countries worked to "L.I.D.X.A. Contest," P.O. Box 599, Lynbrook, New York, with postmarks no later than February 15, 1966. Potential winners will be notified and will be requested to submit all their Contest QSLs to the Contest Committee whose members are: Joe Hellman, W2MEZ; Dorothy Strauser, K2MGE; Win Tames, W4ZQNW; and Marv Frickles, W2FGD. A complete list of winners will be published as soon as the committee has completed the tabulation of the entries. For any additional information, contact the L.I.D.X.A. Contest Committee members via P.O. Box 599, Lynbrook, New York.

—VKAS.

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FEATURING—

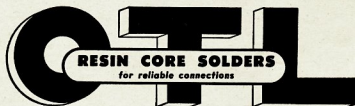
- Smallest 300-watt s.s.b./c.w. Transceiver—6" x 10½" x 11½". Weight 13 lbs.
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SIGNALS SERVICE COURSE

Held at Macedon, Vic.

The No. 2 Signals Service Course, held at Macedon, Vic., from 6th to 11th September, was attended by 30 members, of these 20 were Amateurs

Present were: P. A. Alexander (VK-2PA), J. E. Batrick (VK3OR), K. V. Benwell (W.A.), L. Blagbrough (VK-4ZGL), S. Briggs (VK4SC), T. I. Cairnduff (Tas.), G. C. Casbolt (Tas.), Major E. Collett (VK2RU), H. P. Fuller (VK8TF), M. W. German (VK4ZGM), R. G. Harris (VK5RR), R. H. Hildred (VK4RE), Sergeant R. G. Holdway (Qld.), T. A. Holmes (Vic.), P. B. Jackson (VK2ZPJ/T), C. E. Love (N.S.W.), M. J. McDonald (VK6MM), M. M. McGrane (VK4MZ), B. A. McRae (VK-5MC), P. L. Mahan (VK3AOY), L. A. Maschette (VK6ZDM), D. E. Melbourne (VK2NK), G. A. Middleton (VK5GO), R. A. Murphy (VK5ZDX), M. J. Owen (VK3ZE), Rev. Bro. T. Radcliffe (N.S.W.), R. V. Saunders (N.S.W.), Major R. L. Topp (VK3QT), B. E. Wearne (N.S.W.), E. W. West (W.A.).

It is the first time that a course has been attended by so many people with a hobby as a common bond. The others are all connected with communications in some form or another.

The purpose of the course is to instruct the members of the duties of Signals Officers for the Civil Defence Services in Australia.

A background of nuclear, biological and chemical warfare was given.

Message writing, field telephones and cable laying, signal centre duties and records, raising and training personnel, radio procedure and exercises, and planning radio exercises were covered by the course.

One of the major factors evolved from this course was that no matter what form of communications you are using, the procedure in message handling must be standardised, so that confusion does not arise. A badly controlled and confused communication system is worse than no communications at all.

With the development of Civil Defence in the various States, Amateurs may be required to assist in the train-

ing and operating Civil Defence Signals Sections. We must attempt to get the most from our members who are attending these courses and there will no doubt in the future be others attending similar courses.

We all know that communications are the backbone of any service, be it private, public or civil. These Amateurs and the others are doing their best to prepare for natural and other disasters. What are you doing? Contact your local W.I.C.E.N. Co-ordinator and offer your services.

—Alyn Maschette, VK6ZDM.

NEW CALL SIGNS

JULY, 1964

- VK1AXX—J. W. Hutchison, C/o. Department of External Affairs, Administrative Office, Parkes, A.C.T.
- VK1KEM—E. J. Muirhead, Flat 11, Block 14, Northbourne Plats, Braddon, A.C.T.
- VK2UJ—G. A. Sangster, 23 Hollis Ave., Goulburn.
- VK2BAE—D. C. Boundy, 201 Kennedy St., Armidale.
- VK2ZFE—F. W. Alpin, Banksia St., Orange.
- VK2ZFK—J. Bowden, 40 The Green, Manly.
- VK2ZJ—A. J. Jones, 10 McAllister Ave., Engadine.
- VK2ZMM—J. P. Mack, 78 The Crescent, Cheltenham.
- VK3LL—M. W. Busch, 72 Good St., Balmoral.
- VK3ACT—J. Cuts, 648 High St., Kew.
- VK3AIV—N. O. Duncan, 13 Kenby Rd., Heathmont.
- VK3ANR—Geelong Radio and Electronics, Guild Hall, Myers St., Geelong.
- VK3ZCN—A. P. Leversha, Harcourt.
- VK4ZLL—J. Labruyere, 157 Warry St., Fortitude Valley.
- VK4ZPW—W. Spring, St. Leo's College, St. Lucia.
- VK4ZT—T. C. Thompson, Boys' Grammar School, Rockhampton.
- VK5FA—E. F. Brandon, C/o. Dpt. of Civil Aviation, Goddard.
- VK5UJ—J. S. Burns, 4 Arthur St., Whyalia.
- VK5QM—M. W. Higgins, 15 Beta Cres., Panorama.
- VK5ZBS—G. Downing, 4 Bella St., Gawler East.
- VK5ZDA—D. M. J. Bates, 23 Alison Ave., Blackwood.
- VK5ZJP—J. E. R. Dunkley, 54 Radstock St., Kilkenny.
- VK5ZOF—G. C. Adams, 225 Shepherds Hill Rd., Eden Hills.
- VK6ZEN—G. D. L. Armstrong, C/o. Station 6WA, Wagin.
- VK6ZEM—B. M. McDonald, Station: Munthoola Farm, Williams; Postal: P.O. Box 47, Williams.
- VK9BJ—B. J. Mennis, P.O. Box 61, Rabaul.
- VK9PL—J. G. Porter, C/o. Eng. Branch, Posts and Telegraphs, Port Moresby.

R.S.G.B. 21-28 Mc. TELEPHONY CONTEST—DECEMBER 5-6, 1964

Radio Amateurs throughout the world are again invited to take part in the annual R.S.G.B. 21-28 Mc. Telephony Contest to be held this year on December 5-6.

Attention is drawn to changes in the scoring system described in detail in Rule 8. Contestants are advised that in previous years many points were lost by those who did not read this rule carefully.

Duration: The Contest will start at 0700 G.M.T. on Saturday, December 5, and end at 1800 G.M.T. on Sunday, December 6, 1964.

The Contest is open to licensed Amateurs in all parts of the world.

Contacts may be made using any telephony system for which the entrant is licensed. Only one contact on each band may be made with a specific station, whether fixed, portable, mobile or alternate address. Duplicate contacts must be logged and clearly marked as duplicates without claim of points.

Contest Exchanges: An exchange of RS reports followed by a three figure serial number starting with 001 for the first contact and increasing by one for each successive contact.

Entries: (a) should be clearly typed or written on one side only of foolscap or international A4 size paper; (b) must be ruled in columns head (in this order) (i) Date/Time (G.M.T.); (ii) Call Sign of Station Worked; (iii) I sent him; (iv) He sent me; (v) Band; (vi) Bonus Points; (vii) Points claimed; (c) must be addressed to the Contest Committee, Radio Society of Great Britain, 28 Little Russell St., London, W.C.1, England, the name of the Contest being clearly shown on the top left hand corner of the envelope, which must be postmarked not later than December 21, 1964.

Rule 8. Scoring: Overseas stations may only claim points for contacts with British Isles Stations (G, GB, GC, GD, GI, GM and GW). Overseas scoring will be as follows: Each completed contact with a British Isles station will score 5 points. In addition, a bonus of 50 points may be claimed for the first contact with each British Isles country-numeral prefix on each band. A further 50 bonus points will be scored for every ten stations worked in each of the above categories irrespective of band.

Certificates will be awarded to the leading station in each VK call area.

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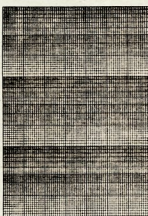
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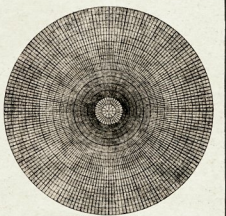
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Polar Co-ordinate.

As we predicted last month the bands really have gone for the big change and 20 metres has gone for the complete reversal with regard to W and X. The change is phenomenal. Whether these conditions will remain as of time of writing is hard to say, but inside two days, the DX and the change is phenomenal. Times shown below are times of maximum signal from each area, and is variable day to day.

100 Metres: The only report here is not actually the DX, but Ray VK3KH will be pleased to hear that his sigs were being received at Rockhampton at 5/7-8 by Charles Thorpe, W1A-14018.

80 Metres: Early mornings on c.w. at around 2200z some Europeans are workable, whilst in the early evenings approx 1030z on the low end, JAs, etc., can be heard at reasonable strength. On the high end DX portion, VR2, ZL, etc., can be contacted on s.b.s.

40 Metres: Around 7.1 Mc. each day at approx. 0700z, G, GI, etc., are workable along with OA, YV, etc. An occasional ZS and ZE can be heard working but sigs are not strong from Africa. 6530z the band opens to the East for KH6 and the associated islands, plus W for a couple of hours. An hour or so later maritime the station is operated by WAJWAI whose home QTH is near Rhode Island. Once they get away from the base down south, they will revert to the operators home call plus MM.

YA1BW-1AN are both keen c.w. men and can be contacted on 20m from Afghanistan around 1430z. JA8BP is on s.b. and hails from Kransnarsk, U.S.S.R., and is in Zone 18. Runs 200 watts to a quad antenna and located at KILSI and KILIS are mother and son from the state of South Carolina.

EP2A and EP2DM are active from Iran. 2000z to 2100z some activity from the East for KH6 and the associated islands, plus W for a couple of hours. An hour or so later maritime the station is operated by WAJWAI whose home QTH is near Rhode Island. Once they get away from the base down south, they will revert to the operators home call plus MM.

15 Metres: A little more activity especially during week-ends, but mostly North-South worked around 1400z.

10 Metres: Garry is reported to have worked a couple of JA stations. How about we give our s.b.s. an occasional South American with Antarctica coming in strong. W, XE and VE stations have practically disappeared in the terrestrial band. Some activity from Africa. 0800z see KLT areas, whilst from 1200z the short path to Europe, Asia and Russian areas are really pumping. This continues most nights until about 1400z.

Just digressing for one short moment, might I say thanks to the boys on a.m. whom I worked on s.b. during the R.D. Contest. The co-operation of the two modes worked well, not one station I called refused to answer and the quick answers to each call was good to hear. I'm sure I speak sure for a lot of fellows in this regard.

Heard Stewart VK2MS calling and calling WGNP for several reasons on 20, with no return, but who was there to answer the call, WGNP. Ken always looks to VK after midnight W time for contacts that really enjoy.

TJ3AA. Armon is on week-ends 14120 c.w. s.b. QSL to Box 4389, San Jose, C.R.

Charlie FO8BL on a.m. approx. 14100 c.w. QSL to Box 45, Papete, Tahiti.

A quick tune over 14 Mc. covering about 20 minutes revealed the following calls and all workable strength: CRT, 147, KH6, HK3, FP, TI, JA1, KG6, KL, KJ6, etc.

HK3AUE is on s.b. most Sundays 14100-14140 c.w. QSL to Box 6070, Bogota, C.

David RIRI looking for good contacts at 6530z with excellent signals from HR at the moment.

ZS8NE, possibly the most consistent from his area, is heard almost daily on the low end of 14 Mc. s.b.s.

KC4 stations are building up in strength but sigs are on a lot of phone patch work with the Ws.

Lots of weak carriers trying to break through on 15 metres during the daylight hours.

VZ8EN heard in the DX portion of 80 mx chatting with ZL.

ZX1AUA is heard on approx. 7094 c.w. at 0740z on s.b.s.

Joe operating 4U1TU is a Scot who knows all the Adelaide and Elizabeth gang in VK5.

WV8WV is heard on 14 Mc. c.w. at 0740z.

FB8WV still very active on 14 Mc. c.w. from 6500-1200z with a T7 note still.

WV8WV hopes to be portable in VU5 this month.

K5SBA and K5SBL can be heard on 14230-285 kHz at 6530 and 6532z.

ETJZC and U.M. are on Deception Island on 14 Mc. c.w. about 1200 and 2200-2300z.

UA1CT is /UJ38 on 14100 c.w. s.b.s.

G2CFMV is on 14020 k.c. after 1200z.

FKRAB is on 7008 k.c. c.w. after 1200z.

LA8B/P on Jan Mayer c.w. 14000 k.c.

FO8BJ on 14110 k.c. s.b.s. at 0600z.

KG6SB and KG6SZ are both on Saipan at the moment.

Heard Peter VK5FM working KAUSW/MM near the South Pole, aboard the Mills, which is heading on a round the world tour while maritime station is operated by WAJWAI whose home QTH is near Rhode Island. Once they get away from the base down south, they will revert to the operators home call plus MM.

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George VK5RSX appears to be very jubilant over the change in conditions, the long path to W and 20m and 20m being very good at his QTH.

OX3VJ is old OZTJV from Denmark, and now at Greenland using s.b.s. on 14 Mc.

SL8EB is the training centre of the Royal Swedish Air Force, and is operated by SM6-CKU. They are using a HK500 at 100w. with a hi-gain vertical and the hearing aid is an SX10A.

FI8CD is a good contact and a number of VKs have made contact on s.b.s. or c.w. Operator is Alan Glenard and located at Domaine de Patay, on the Island of Anjouan, in the Comores group. His frequency is 14275 on s.b.s. He is heard around 1330z.

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Ken VK3TR reports the 20 mx band is really open to Africa during the afternoon from about 3 p.m. V.E. time. Ken has worked the following on s.b.s. CR8GO, CR8GO (a.m.), CR1G1, HC1JW, HC2SNW, HR1RP, TJ3AA, VQ2RB (a.m.), SM1JH, ZC5AM, TQ2GN, 20 mx c.w.: TF7AB, VQ2JH, HP1MX, SP8RF, TP1PT, TJ1KA, etc. Ken's best QSL for the month: LX3MZ, W44 JXV/V02, AP2AP, CR7GF, AC7A, VR3AA, IASTX, ZSTR, PO8AQ, YN1IH, CX3AA, CX-INE, CE7AA, TF7AA.

Some QTHs: SP8RF, via SP8RF, ZC5AM, Box 77, Singapore. TQ2GN, Box 700, Blantyre, Malawi Republic. HR1RP, U.S. Army Mission, C/o U.S. Embassy, Tegucigalpa, Hon. Many thanks Ken.

From George VK5GG, all on 20 mx s.b.s. and all short path: OE8GL, G31WV, ITTAL, MF4BVP, G31WV, SWOWG, G3AB, DL4DI, GA3XJ, DL4DX, OZ8SL, UA6XG, G3PCI, SM-2BJ, G3JM, SM5CSL, UA4CB, UW10L, OX-3J, UM10M, SM5AS, G2FSF, OX4GO, KC4KC, OX4J, VEDIC, UA1CK, SM5AG, VQ2WB, LA1LF, OH4AF, F8UC/F, ZS6N, ZELIE, HR1B, CR7GF, ZS1J, ZS6N, UA6CAA, ZENNE, ZEA0, ZS8BO, ZS4PU, KR8QJ, DJF, G3KOM, SM5CO, 9M2DQ, ZS4U, KR2RA, G3-BC, UO6PF, ITTAL, W, KLT, JA, etc., not listed. It's taken a long time George, anyhow thanks. I'll come down and peak that quad for you, hi.)

Keep an eye open for "France" from the 14th November, from Rodriguez under call of VQ8AMR, transmitting a.m. and s.b.s. in the 14 Mc. region.

SVUWGO: QSL to C/o K1EAT.

Also happy with the change in DX conditions 14. Garry SZK, who reports working the following on 14 Mc. s.b.s.: VS8AJ (1130), H518 (1145), OZ2OP (1230), 9M44W (1240), AUITU (1345), VY8BKW, JA1CK, SM5AG, DJ8RR (1400), HC5NW (0400), 9M2DQ (1245) Ws 2-3 (1425), ZS4OI (0500), WX3AX (0600), HB5VY (1232), GRUC (1230), G31WV (1230), MF4BEQ (1330), HS1BD (1330), ZS4DI, VQ8AM (0815), SM2LO (1130), G3EIN (1230), SM4AM (1300), 112JG (1300), G3SOC (1315), VK4F (1335), G3GJ, G3GJ, G3GJ, G3GJ.

On 21 Mc. J.A.D.E. and s.b.s.: JA1-J, W5-6, 28 Mc. at 0300 J.A.D.E. JA3CXN, TX-GR.

So that's it fellow Hams. Things are definitely looking better. Thanks to the following:

Peter Drew, Garry SZK, George SZK, George SRX, Ken 3TL. See you next month, 73, Bert VK5BB.

W.I.A. D.X.C.C.

Listed below are the highest twelve members in each section. New members and those whose totals have been amended will also be shown.

PHONE

	Cer. No.	Cer. No.	Cer. No.	Cer. No.
VK3MS	10	10	10	10
VK8RU	3	3	3	3
VK3AB	45	45	45	45
VK6MK	43	43	43	43
VK4F	21	21	21	21
VK4F	21	21	21	21

C.W.

	Cer. No.	Cer. No.	Cer. No.	Cer. No.
VK3MS	10	10	10	10
VK8RU	3	3	3	3
VK3AB	45	45	45	45
VK6MK	43	43	43	43
VK4F	21	21	21	21
VK4F	21	21	21	21

OPEN

	Cer. No.	Cer. No.	Cer. No.	Cer. No.
VK8RU	3	3	3	3
VK4F	21	21	21	21
VK3AB	45	45	45	45
VK6MK	43	43	43	43
VK4F	21	21	21	21
VK4F	21	21	21	21

The following letter from John Lee, WYKKS, contains some interesting news from U.S.A. and is published herewith:

"I just received a copy of your Ham magazine, 'Amateur Radio', and am glad to see that Hams in other places on the world have not given up on v.h.f. Also find it very interesting that you are using the u.h.f. frequencies since they are not in wide use here in the U.S.A., considering the number of Hams here.

"We also have the television problem on 50 Mc. but it isn't because the v.t. station is inside the Ham band. Our lowest channel is Channel 2 (54-60 Mc.).

"There are quite a few Hams on 80 and 144 Mc. all over the country. Now that the sunspot cycle has gone to a minimum, and band openings are few and far between, some of the Hams have gone to working DX and meteor scatter for DX. The best time for this propagation seems to be early in the morning 0600 to 0900 local time, and the best path seems to be north and south. Distances of around 1000 miles are not uncommon for the high power stations. However, I only run 250 watts input with a single +125A (42L), and have an eight element beam up about 40 feet. So far my best scatter DX is San Francisco (about 275 miles). Other stations work consistently distances such as from Los Angeles to San Francisco and from San Francisco to Seattle, and Portland, Oregon. On 'skip' openings, of course, you know what can be done.

"Well some day the sunspots will be back and maybe we will have a QSO on six. I will be there as I leave the six metre receiver on most all the time. I am awake. Also, if you are interested, we have many antenna and rig designs available here and would be glad to share them with you. For now, good luck and DX."

John's address is P.O. Box 472, Fortuna, California.

As VK2 and VK3 notes have not been received for some time, would these Divisions please consider a new correspondent? 73, 3ZGP.

LATEST LIST OF V.H.F./U.H.F. RECORDS FOR AUSTRALIA

- 50 Mc.: VK3ALZ-XE1FU-1/5-59-8,418 miles.
144 Mc.: VK2ZKP-ZLIADE and ZLIAUM-24/12/63-1,381 miles.
432 Mc.: VK3OB/VK3ZAV/3-19/1/64-97.3 miles.
576 Mc.: VK6ZDS/6-VK6LK/6-15/12/63-101.2 miles.
1215 Mc.: VK2ZAC-VK2ZCF/2-4/3/63-46.8 miles.
30 Mc.: VK3XA-VK3ANW-18/3/60-9.0 miles.
3300 Mc.: VK3ZGT/VK3ZGK/3-VK3ZDQ/3-14/12/63-63.5 miles.

THE BEACON BOX

- VK5VF—**
6 Metres — 53.000 Mc.
2 Metres — 144.800 Mc.
One call on c.w. then carrier for 40 seconds, then repeat, etc. Operation is almost continuous.
- VK6VF—**
6 Metres — 52.006 Mc.
2 Metres — 145.060 Mc.
Automatic c.w. identification with approximately four seconds key-down position. Operation is almost continuous.
- VK3: ATVO—**
51.75 Mc. f.m.
0900 — 2300 hours daily.
(100kw c.p., 2600 ft. elevation)

VICTORIA

This past month has seen a rise in activity on the bands as winter's long and cold nights are giving away to longer and warmer days. The advent of the warmer nights have given impetus to a return to the shack. New call signs (and older) are appearing each week. There is an increase in the users of the net frequencies since the "activities" day on 13th Sept. in Victoria. The 53.032 a.m. net is receiving quite a lot of attention and some 40 odd stations have been logged on this channel. The f.m. net on 52.83 Mc. is slowly picking up. There is a small supply of 70 Mc. f.m. mobiles coming on the market here and they are being snapped up.

The really keen 6 mX enthusiasts are working on their gear, ridding themselves of Channel problems. The lack of quality of the regulars will be getting quite the DX during the Ross Hull Contest. Other States should catch the Melbourne gang probably down the low end of the band during non-programme (test pattern) hours and then higher in the band during regular programme times. Approx. 3.30 p.m. onwards (except for special calls) Channel 9 will be programming. Approx. 9 a.m. onwards is test pattern time.

From comments quite a few fortunate ones have no problems, however as the activity increases, no doubt so will the problems. Most of us will have to use vertical polarisation to minimise possible problems.

Two metres is showing quite an increase in activity. The field day season will commence in October and take place on the third Sunday of each month except Feb. which will coincide with the National Field Day. Same rules will be later in the year. There is to be more activity on this band this season.

432 Mc. has attracted quite a following with some 12 or so enthusiasts. Just recently a 150 mile distance was made between 32ZS8P and 3OB/P. We trust the Amateurs concerned will make a claim for the record—anything to pass the distance.

1296 Mc. has interested a few here in Melbourne and I believe in Geelong. 3AUX has a really "hot" converter with cavities constructed from well known materials. The unit is a V-gate. We gather the expression "not worth 2 bob" can't apply here also as we have seen the unit and can touch for the price. That there is more than "2 bobs" worth of silver in it.

It is hoped soon to produce a "V.H.f. Newsletter" in VK3 and if our plans are realised there will be hope to keep more in touch with per this media. Having seen both the VK2 and VK3 varieties, we have no illusions that it isn't a hard work. Here's hoping for success. 73, 3ZGP.

VK3 52-54 Mc. stations and frequencies from the Melbourne area, supplied at the request of other VK Divisions: 52.02: 52.06; 52.07: 52.10; 52.14: 52.3P (fixed and mobile); 52.32: 52.36; 52.37: 52.37; 52.38: 52.38; 52.39: 52.39; 52.40: 52.40; 52.41: 52.41; 52.42: 52.42; 52.43: 52.43; 52.44: 52.44; 52.45: 52.45; 52.46: 52.46; 52.47: 52.47; 52.48: 52.48; 52.49: 52.49; 52.50: 52.50; 52.51: 52.51; 52.52: 52.52; 52.53: 52.53; 52.54: 52.54; 52.55: 52.55; 52.56: 52.56; 52.57: 52.57; 52.58: 52.58; 52.59: 52.59; 52.60: 52.60; 52.61: 52.61; 52.62: 52.62; 52.63: 52.63; 52.64: 52.64; 52.65: 52.65; 52.66: 52.66; 52.67: 52.67; 52.68: 52.68; 52.69: 52.69; 52.70: 52.70; 52.71: 52.71; 52.72: 52.72; 52.73: 52.73; 52.74: 52.74; 52.75: 52.75; 52.76: 52.76; 52.77: 52.77; 52.78: 52.78; 52.79: 52.79; 52.80: 52.80; 52.81: 52.81; 52.82: 52.82; 52.83: 52.83; 52.84: 52.84; 52.85: 52.85; 52.86: 52.86; 52.87: 52.87; 52.88: 52.88; 52.89: 52.89; 52.90: 52.90; 52.91: 52.91; 52.92: 52.92; 52.93: 52.93; 52.94: 52.94; 52.95: 52.95; 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Arthur did tell of his many efforts trying to make contact on 6 mx from Normanston to New Guinea when he was stationed up there. He used to call CQ VK3 quite a bit but could not break through. While on the subject of VK3, someone please tell Paul ZEBV that he can come back and his old call sign since they have decided to close down the office just down the tramline from his Brisbane QTH.

News from the Bundaberg district indicates that there are now four 6 mx stations in a night hook-up. It seems John 4ZMJ is thinking of a 50 ft. mast and Roy 4ZWB and Bill 4ZWS have been working on a tx and two super-regen. rx's for 2 mx.

The Ipswich Amateur Radio Club seems set to appear on 6 mx. They intend to apply for a club call sign, but at the moment they will be using the call sign of Warren 4GT. Bill 4ZWD will be putting in a signal from Ipswich in the near future. Bill has accepted a position at the local b.c. station.

Victor 4ZBT has not been the best. He has had quite a stay in hospital and by the time this is published we hope that he has well and truly recovered. Lawrence 4ZLL has been heard using a taxiphone on 6 mx—welcome to the bands OM.

John 4ZWB in Dalby has been having a good time on 144 mega. While calling Bert 4ZCP in Toowoomba, he was called by 2WQ in Grafton. Not a bad effort for 250 miles on 2 mx! By the time the v.h.f.ers say congratulations to David 4ZEX for taking out the VK4 honors in the last Ross Hull Contest, it is just about time for the next Contest. Anyway, David well done.

Had words with Jim 4ZRNA who hopes to be on the bands soon. Certain stations have already been using certain phonetics for his call sign, but these cannot be published on broadcast. What did you say about Rosy Apples Tom? Ross 4ZAT has been calling from Brisbane Island on 144 mega. He was in doubt about the efficiency of his gear until someone heard him crying out in the wilderness.

If recently you heard the "Duke of Deagon" calling swing corners, promenade, ladies to the center, etc., you may have been at a dance which happened as it was only a dance in progress. The grape vine has been very active lately and along it came the news that local Hama of one of our northern towns are very busy with Amateur t.v. Forerunner, who was the v.h.f. station 144 mega to 40L mobile on 40L which he should have been up tuning 6 mx? I hope the Jamboree on the air v.h.f. wise was a big success. It should have been with all those stations operating. 73, 4ZFL.

WESTERN AUSTRALIA

The field day over 12th-13rd Sept. was a big success. Lance 6LR tried to read his first point 7 miles east of Bindoon but wound up in a field exercise being conducted by some branch of the services. He got the password eventually for he was on the air for the 1

a.m. session. He called several stations who never came back and would like you to swing the beam north next time. Ken 6ZBT had trouble with a 2k.v.a. motor alternator. Its big end and main disintegrated due to using wrong oil. Trevor 6ZCA had a squashed petrol tank due to head road near his Dwellingup site. The winner looks like Ken 6ZBT with 12,430 points, followed by Charles 5LK 11,770 points. Andrew 6ZCW, in Bunbury, won the home station section with 7,725 points.

The fox hunt on 19th Sept. was won by Doug 6ZDW and Graham 6ZDB second by a matter of seconds. Bill was bogged for two hours in a swamp nearby. He saw a red parking light on the next hill and gave her the gun. Only to hear the vehicle approach road and the swamp was a pretty good bunker. Roy 6ZBD managed to extract him after they found the aerial poking through the water. The fox was well hidden and quiet to using a vibrator p.s. Just as well, for a goon mob had chosen the site for a beer-up, despite miles of surrounding bush in the South Riverston area. Each hound had a raucous welcome and needed some extra guidance as the tone had failed Supper was at Bill 6ZB's residence. 73, 6ZAG.



YOUTH RADIO CLUBS

There is a new aspect to our clubs which your members should find exciting. It concerns the Duke of Edinburgh's Award Scheme a challenge to the young people of Australia to show that they are made of it. It is not competition against others, the challenge is a personal one for each boy or girl (between 14 and 18) to reach standards laid down in one activity from each of four groups, e.g. for boys, Rescue and Public Service, Expeditions, Pursuits and Projects, and Fitness. It is likely that our Y.R.S. certificate will be acceptable—some discussion has been started. Club leaders can get full information from their State Supervisors on this part, but the general conditions for other sections are laid down by the National Fitness Council. Club leaders who have members with wide interests and sufficient of what it takes to tackle all four sections should have a drive on this one. Who will be the first Y.R.S. member to be presented with the Duke of Edinburgh's medal by the Duke or the Governor-General?

Some items from VK3: Some details are now available about the latest schoolboy A.O.C.P. Paul Goldsbrough, of St. Edward's College, Gosford. Lee Kinsella, who started Paul on his first radio, writes that Paul passed full certificate but has to wait till next year to turn 18 before getting his licence. He did c.w. mainly with the VK3 Slow Morse session, but also had tapes from the Slow Morse station.

wart organiser, Frank 2AQC. Lee (2AXK), of Christian Brothers' College, Wollongong, at present has a booklet "R.A.S. (Administrative Details) which he is circulating among club leaders, so you should send Lee a half-foolscap envelope (stamped with 6d.), print Y.R.S.I. in bottom left corner. It includes one 6d. stamp to help with expenses.

A nice budget of news from 4 Uncle Charlie. There are now 15 registered clubs. 4PE at Padua College went on the air on 19th Sept. with 100 Teachers and 40 students and 200 members and club member Bob Stroud (operating) making contact with 4WL 4V1, (VK4 Present), 4RP (Clontarf High), 4DS (D.L. College), 4AIIH (Wentworth) and some 2AXK at Wollongong. New clubs at Redcliffe High (run by teacher Ken Keith), Yeronga High School Teachers and 40 teachers and 400 members. Our Amateur Radio Club has formed a strong and active Youth Section which meets on Friday nights at the QTH of Warren 4GT (the leader), has 22 members (10 to 16 years) with projects ranging from xtal set to 4-tube superhet. Office-bearers are Malcolm Rouse (Pres.), Peter Twining (Sec.), John Stead (Treas.). Publicity in the Ipswich Press brought in 40 old radios. They aim to have a station licence next year.

Clontarf High is on the air three afternoons a week looking for contacts from 3.15 to 4. Claude 4UX is to address the October meeting of the Science Teachers' Association of Qld. on the Y.R.C. organisation. He is a Y.R.S. member and operates a station. There is to be an article in above Association's newsletter and in the Y.R.S. newsletter. Teachers and students of some Scout Groups are very keen but stranded—no Amateurs in the area, not even somebody mildly interested in Radio, to help them!

News from VK3 is interesting and widespread. Blind and partially blind Alan and Sue Everett, of A.P.I., are assisting with Royal Vic. Institute for the Blind at Burwood. Some of the standard radio symbols are being used in an emblem on an emblem on an emblem on the Braille lettering. Robin Rowlands, of Scotch College, gives the news that Peter Garde should be active on 2 mx and hopes to sit for the c.w. in October. Club at Koorumbura reports members building wide range of projects including 2 and 6 mx rx, c.r.o., amplifiers, etc. New club at Strathmore High with instructor Mr. P. K. Alsop. Wilf Miles, bearing the load at the Australian Postal Institute, Dave Buck and this club are great supporters of the Y.R.S. Boys at Bundoora received their first QSL from Division President of VK3, who also wrote a letter of encouragement.

Sunday, 12th Sept., was open day at the Christian Bros. Edmund Rice College, Bundamba. Harry 4ZWB, on 144 mega, was the first of the Y.R.C. display to demonstrate Amateur Radio in action to club members. The tx was loaded into a long wire antenna on 80 mx and the following VK stations were contacted: 3JL, 3AVK, 3DF, 3EO, 3VL and 3MO. Each of the boys had a turn at the mike and were impressed by the way a net was quickly formed out of one contact. Featured as part of the Y.R.C. display were the elementary certificates the boys had received recently, also equipment owned by the boys and the club. The crystal sets and one-valve rx's built by the boys are part of the practical tests were also working. The display was a credit to the club who were able to fill a class room with items that created interest amongst the parents and visiting boys of the school. (Thanks for this info, Don 3ZMX.)

I had a chat to Bob 50D on the air recently and was glad to hear things are moving generally in VK3. I know time is needed to get things going but will be looking forward to the next few months in VK3, especially after the schools resume in February.

Would like to talk to more Y.R.S. stalwarts. I'm often open on Canberra Radio Society) on 80 mx, Friday night about 8.30. If anybody cares to give me a call, will appreciate it. 73, Ken 1K3M.



This badge distinguishes the active member of the W.I.A. You can purchase it from your Divisional Secretary.

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30 Urunga Parade, Miranda, N.S.W.

TIT-BITS FROM TIM

In QSLing to a broadcast station even the scantiest information, like, "I heard your station, please send me a card," will nearly always receive a reply. The reply may be in the form of a card to all the printed matter under the sun. B.C. Swilling is easy as stations want your name to boost their known listening audience. The same is not the case when replying to an Amateur. A report like "I heard you working my neighbour last night, please send me a card" will not get very far. Your details must be good. They must be of some use to that Amateur. If the average S.W.L. has a return better than 5% of the number sent out, he is lucky. Cards cost money, so be on the ball with every relevant detail and your returns may improve.

I was sorry to hear that the VK7 group had disbanded through lack of support. If there are still enough members to keep the group going for meetings, how about someone keeping the issue of S.W.L. numbers alive?

Well yet another year is drawing to a close. Don't tell me that V.H.F. Contest is next month, a bit long, but worth supporting. Ross Hull was an Australian but spent much of his year in America. A tireless worker with the A.R.R.L., "QST" and the Handbook and many activities both in and out of Amateur Radio. He met his untimely death by being struck from the high voltage line of a t.v. set on the night of 13th Sept., 1958.—Tim, L2303, Z2T/M.

FREQUENCY AND WAVELENGTH (Continued)

Now engineers define the word frequency by the number of complete waves or cycles of the particular signal which would pass a given point in one second, hence the term cycles per second.

But why talk about cycles-per-second when there are more convenient terms available? Remembering that 1,000 cycles is equal to 1 kilocycle, we can express the frequency of waves with a 1,000 kc. wave length, or simply 1,000 kc. To take the abbreviation one step further, it can be expressed as 1 megacycle per second, or 1 Mc.

From all this we can derive a simple formula. To convert wavelength in metres to frequency in kilocycles, simply divide into a figure of 300,000. The formula works both ways. If at you divide frequency in kc. into 300,000, the answer is wavelength in metres. Finally, one megacycle is equal to 1,000 kc. and that is equal in turn to 1,000,000 cycles.

For convenience of reference, the radio frequency spectrum is divided into bands. Of interest to the average experimenter are the medium and high frequency bands. These bands cover from 300 to 3,000 kc., and from 1,000 kc. to 20 Mc., respectively. The familiar broadcast band lies within the first mentioned and is from 500 kc. to 1,500 kc. The short wave band is really the high frequency band, the major international short wave stations collecting at various spots.

NEW SOUTH WALES

If the steady increase of members to our meetings continues, then our committee will be rewarded for their effort to revive interest over the past twelve months. It is certainly gratifying for the chaps who come along each month to see the new faces appearing, and we trust that they will continue to do so.

Ross L2390/22KB is busy excavating for the erection of his tower which by now should be on the way up. Sorry that you missed the R.D. Contest, but holidays are important as well as the average experimenter. The familiar broadcast band lies within the first mentioned and is from 500 kc. to 1,500 kc. The short wave band is really the high frequency band, the major international short wave stations collecting at various spots.

Don L2322 was in Sydney during September, but owing to a mishap could not get along to our meeting. Sorry to have missed the chance to have met you. O.K.

Ray Bergmeier: I trust that my reply was to your satisfaction and the pamphlets were of some value. I can be of help at any time just drop a letter to me.

Sid L2258 has had rx trouble, but is once again back in business. Many thanks for your continued assistance re this page, it has been much appreciated.

Mac L23074 has words with me once a week over the blower, and I would say that he is gradually getting back on the air. He sends his regards to all his mates down south.

VICTORIA

Eric L3042 is in direct contact with CO2BB (Cuba) by mail and can pass any S.W.L. reports to him by mail. He has also got a lot of QSL cards for VK direct to him for distribution. A rare QSL received in the form of one from W0EYH/Mobile 9 because it is for a transmission using c.w. when on a vacation trip in his car. When Eric heard him he was near Chicago on his way home. Other QSLs to hand: CO2, FOS, 406, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000.

Lloyd L3141: Sorry to hear that the wind played such havoc with your antenna, and also of your QRM problems. Thanks for the copy of the Long Island DX Bulletin. It is a good indeed. I shall return it at a later date.

From the Black Rock boy, Greg L3138, comes the usual compact letter which contains plenty of interesting details of the contest. Final, hi. It's a pity they don't play the N.S.W. game down there. There's a flying words—Editorial: QSL, L2303, Z2T/M, UAO, UA9, Z54, F08, G3, VSI, MP4, YV5, etc., whilst heard covers quite a nice variety.

Drew Diamond, another keen lad who uses a home brew, has a 1000 kc. dipole, up some 20 ft. That was a very impressive list of DX received. I was very pleased to hear from you.

Addison L3071 is a s.w.b.e. listener and sent quite a long list of stations received on those bands.

QUEENSLAND

From the Brisbane boatman, Lew L4020, comes a photo of one of his catches. It's a really big fish. Quite a handsome trio—the two fish and the angler, hi. Recent logs: JA, KW, XE, etc. and the last S.W.L. Ocean member of the above club, and thanks for your nice remarks.

Thanks to A. Robson, of Rockhampton, and K. Reis, of Toowoomba, for their letters. I hope the printed matter was of interest.

SOUTH AUSTRALIA

Last month I was pleased to add another name to the L5 list. This month it is my pleasure to add yet one more, and trust as time goes by I shall have many more. A welcome to the page goes to Tim Corbin, L5057, who is hoping to gain a rung on the DX Ladder very soon. His first DX: KLT, HCI, ZE7, VR and so. Not a bad start.

Alan L5065: Congrats on gaining the L5 section of the N.F.D. Contest. I hope that good tally in the 45 min you another first. OK on getting ready for the v.h.f. season. I think you will like those bands.

Brad L5069: must apologise, as I have missed your letter and naturally cannot make any comments.

WESTERN AUSTRALIA

From the lone L6, Peter L6021, comes the usual interesting letter. This month Peter received 130 cards, in which were 14 new countries. This puts him at second place on the Ladder. Also to hand is the R.S.G.B. 21-28 Mc. award which he won in 1953, nice going O.K.

Congratulations to L2342, L3138 and L5049 for their respective wins in the Ross Hull V.h.f. Contest, 1953-54.

That's it for this month, chaps. Cheers, thanks to Tim and the members who have helped to make this page possible. 73, L2211.

S.W.L. DX LADDER

Countries	Conf.	Hrd.	Conf.	Stations
E. Trebilcock	284	293	40	50
F. Dwyer	281	281	34	50
D. Grantley	124	281	38	35
A. Westcott	93	159	31	11
M. Hilliard	90	241	33	14
M. Cice	60	150	31	21
G. Earl	60	150	31	7
C. Abernethy	63	104	33	14
N. Harrison	56	172	31	37
J. James	56	172	31	10
I. Thomas	42	139	20	14
R. Beckley	27	50	19	—
A. Reis	2	14	21	—
R. Oats	—	26	8	—

Publications Committee Reports . . .

The Publications Committee reports that all inwards Divisional notes, etc., received at P.O. Box 36, up to the evening of the 12th October have been published in this issue of "A.R."

In addition correspondence was received from VKs 9PL, 4NS, 3LK and 2YB, and Technics Articles came from VKs 1AU, 6DR, 3JT and 3ZEL.

A matter from VK3VA was referred to the Victorian Division Council for decision regarding policy.

The Committee discussed the publication of a "History of Communication" from J. R. Coz and agreed it should appear in serial form in "A.R." as soon as possible. Proofs for the "Call Book" have been returned to the P.M.G. for authorisation to publish and it is anticipated that the new edition should be available late in November. As already explained, the late publication of the Christmas issues of the P.M.G. and next year the "Call Book" will be issued in June-July.

Mr. Bill Roper was welcomed to the Committee and will act as technical article reader and v.h.f. adviser.

The question of publishing the Christmas issues of "A.R." was discussed and the view of the holiday period shut-down at the printers the following will be publication and issue dates:—

DECEMBER 1964: Copy required by 8th November for release on the 1st December.

JANUARY 1965: Copy required by 1st December for release late December or early January 1965.

FEBRUARY 1965: Due to the fact that this issue will be set up during December 1964 for issue in mid February 1965, it will not be possible to publish any Divisional Notes, SWL, VHF, DX Notes etc., nor any Hamads. This will apply to the following issue (April). The February issue will be devoted to technical articles.

All readers are particularly requested to note the above changes in the issue of "A.R." for 1965.

Finance of "A.R." was discussed and it was agreed to maintain the current budget which may show a slight deficit for the year.

No "A.R." wrappers were returned from the October issue, hence the Committee can only conclude that all wrappers are correctly addressed. Members of the W.I.A. should notify their Divisional Secretary of any change of address. Direct subscribers should write to Admin. Secretary W.I.A. C/o P.O. Box 36, East Melbourne, C2. All licensed Amateurs must notify the P.M.G. of any change of the address of their transmitting station, in addition "A.R." should also be advised.

Correspondents are again advised that ALL matters pertaining to "A.R." should be addressed only to P.O. Box 36, East Melbourne, C2, Vic.

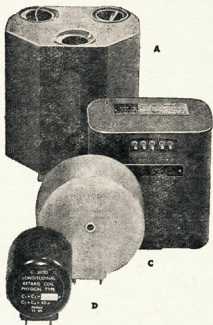
SONSPOT ACTIVITY (or lack of it)

We should all know that a "Zurich Sponspot Number" is an indication of the level of solar activity. We should also know that at present sunspots numbers are near zero and hence we speak—and because of such a situation, the ionospheric layers are far from dense, and m.u.f. for world-wide radio contacts are relatively low.

How many of you readers are aware that the Zurich Sponspot mean number (daily) for August 1958 was 200; for August 1961, 52; and for August 1964, are Analyses of the present activity and recollect the 1958 feeling, or you newcomers imagine what it must have felt like in 1961!

The "experts" are now forecasting that December 1964 could well be the current sunspot minima month—after that there will be a slow climb back towards (we hope) the 1958 maximum level (and the good old DX days).

—Eric Trebilcock (W1A-12042)



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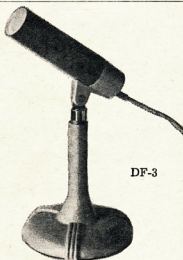
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FEDERAL AND DIVISIONAL MONTHLY NEWS REPORTS

(SEND CORRESPONDENCE DIRECT TO DIVISIONAL REPORTER NAMED AT PARA. END)

FEDERAL

I.A.R.U. NEWS

Region II. Division

From 14th to 18th April, 1964, representatives from 16 I.A.R.U. Societies in Region II met in Mexico City to form the Region II. Division of the I.A.R.U. A constitution, patterned on that of Region I, was drawn up and an executive committee of six were appointed. Those appointed were:—

Chairman: Antonio Pitt, XE1CCP.
Vice-Chairman: Italo Giannattelli, YS1IM.
Secretary: Gustavo Teusens, OAA4AV.
Treasurer: Noel Eaton, WEC3.
Member: Miguel Cysch, LU1DCA.
Member: Robert Dennison, WUNWX.

The new division looks forward to receiving further membership from countries not represented at the inaugural meeting.

U.S.A. Reciprocal Operating Privileges

On 28th May, 1964, President Johnson signed a bill on reciprocal operating for Amateurs to eventually make it possible for foreign Amateurs to apply for operating privileges in the U.S. When permission is granted, the foreign Amateur will be able to use his own call sign with an appropriate portable suffix. The A.R.R.L. hopes that Societies interested in this participation will approach their administrations to obtain this agreement with the U.S. State Department.

U.K. Licence Structure

The R.S.G.B. has announced that as from 1st June, 1964, a revised licence structure has been instituted. Existing licences will be replaced over the next year. The new structure includes the Amateur A, Amateur B, Amateur Licence, and T.V. licences. Amateur A is the general licence, and Amateur B is a phone only licence restricted to operation above 430 Mc. with letters beginning with G6 and three letter suffix. Amateur T.V. licences will be assigned G6 three letter calls followed by /T. Stations operating from a temporary location will now be given the prefix of the G country they are in followed by the call letters and /P. Log times are to be kept in G.M.T., but the frequency will be used, rather than the Amateur band, will be used. As from this date, the 70 Mc. band will be extended to 70.1-70.7 Mc.

Newly Developing Countries

The following is in part the text of a letter from an official of one of the newer countries. This official is also a licensed Amateur:

"American Amateurs do indeed have a large responsibility for the future of Amateur Radio by virtue of their numbers and by the standards they set. In the developing countries, however, it is relatively easier for the local Amateur to maintain contact with the licensing authorities and to enhance (or damage) our image with them. A very great responsibility must therefore rest with those few Amateurs in DX locations. Most countries would like the world to know more about them; hence their desire for short-wave broadcasting. Our job is to convince the right people that 100 Amateurs at 100 watts each are worth more than one 10kw. broadcast station. The way I see it, we need more publicity directed towards telecommunications authorities in the newer countries. Could we not emulate the practice of companies by sending complimentary copies of 'QST' to many administrations?"

The above includes many words of wisdom with which we heartily concur.

Retirement of G6CL

After 32 years as secretary-general of the R.S.G.B., John Clarricoats (G6CL), retired last December 31. Clarry was one of the leading lights in the founding of the Region I Division of the I.A.R.U. and has consented to continue as secretary of its Executive Committee. W.L.A. and our fellow members to those of the I.A.R.U. and in wishing him a happy retirement and satisfaction that his vast experience is not to be lost to world-wide Radio Amateur affairs.

Commemorative Stamp

The A.R.R.L. in celebrating its 50th anniversary this year is fortunate in highlighting the occasion by the approval of the U.S. Department of the Interior for the issue of a postage stamp honoring Radio Amateurs. For those philatelists who are interested, October was the month for issue.

New Union Members

The W.I.A. takes pleasure in welcoming the Jamaica Amateur Radio Association (J.A.R.A.), the Radio Amateur Association of Greece (R.A.A.G.), and the Radio Society of Ceylon (R.S.C.) as new members of the I.A.R.U. Calendar 64 also announces proposals for the Amateur Radio Society of Barbados (A.R.S.B.) and the China Radio Association (C.R.A.) to become members. The W.I.A. has voted in favour of the A.R.S.B. but may in the case of the C.R.A., as in this case all of the qualifications for membership have not been met, the main point being that of 1,500 members of the C.R.A. only one is a licensed Amateur. It should also be noted that the old Association des Amateurs-Emetteurs du Maroc (A.A.E.M.) has changed its name to the Association Royale des Amateurs Emetteurs du Maroc (A.A.R.E.M.).

Amateur Band Intruders

In most I.A.R.U. Calendars are listed intruding stations on Amateur bands, as logged on a number of occasions by the International Frequency Registration Board of the I.T.U. which has 93 different monitoring stations located throughout the various sovereign nations. In the last Calendar, a number of Russian stations were listed, but particularly two on 7060 and 7035 kc. The secretary of the Radio Sports Federation (R.S.P.), the Russian I.A.R.U. Society, has informed the I.A.R.U. that his government denies operation of any stations in the Amateur bands. We offer no comment on the above, as it is not the province of members who have the time to report any infringements of this nature through their provisions. Forms should be available for reporting from your Division.

FEDERAL EXECUTIVE, 1964-65

The following Federal Executive Officers were appointed by Federal Council and notified on 31st July, 1964:—

Major Bill Mitchell, VK3JUM, Fed. President.
Mr. G. Hull, VK3ZS, Fed. Vice-Pres.
Jay Lancaster, VK3J1, Fed. Secretary.
Robert Boase, VK3NI, Fed. Treasurer.
David Rankin, VK3QV, Fed. Actv. Mgr.
Aif Seedman, VK3IE, Fed. Business Mgr.
Arthur Tinkler, VK3ZV, Fed. Com. Mgr.

The following co-opted officers of Federal Executive have been appointed for the tasks shown:—

Ray Jones, VK3RJ, QSL Officer.
Aif Kinch, VK3KB, Awards Officer.
Tom Straughter, VK3ABV, Project Officer.
George Glover, VK3AB, Historical Officer.
Lionel Sharp, VK4NS, Contest Officer.
Rex Black, VK3YA, Youth Radio Club Offc.

NEW SOUTH WALES

HUNTER BRANCH

And so the Hunter Branch Convention is past. What a successful Convention this was. For the first time in many years, the customary 'all male' dinner took a new lease—indeed a new dignity—when we were favoured with the pleasant company of the ladies. And from all reports the ladies enjoyed it too. So why not make this a regular feature. Business annual event? It certainly was the formula for success this year. All told, there were 80 members and guests at this year's convention, and following the more formal speeches delivered by Lionel ZCS, Pierce 2APQ and Keith 2AXX, another Keith, ZEAU this time, of the staff of Radio and Hobbies, gave us an interesting insight into the future. Keith called this his 'Crystal Ball Night' and he chose to describe three possible futures. The first will be featured soon in the magazine. Stuart 2AYF proposed a vote of thanks to Keith at the conclusion of the evening. Meanwhile, Frank 2APQ kept things rolling at the top

table. I have not quite forgiven him yet, and those who were there will know what all that is about.

To begin at the beginning is always a wise move and so I should report first the activities of the constructional competition. This was the best organised competition we have ever had. The following were the constructors, in order of appearance: Les 1RJ, a two metre sniffer; Max 2ZMO, a two mx tx for the table top; Des 2ZDN, two transceivers using transistors; Ian O'Toole, a low frequency rx; Bill 3ZWM, a 6 mx tx; Bill 2ZCV, a 2 mx tx receiver, and Bob 2ASZ (visitor from Sydney), an a.b. transceiver. As can be imagined, deciding the eventual winner was a difficult task indeed with such an array of first class gear. So difficult, that members were asked to vote on the item of their choice so as to assist the committee. Des 2ZDN was pronounced the winner at the prize giving ceremony the next day and his trophy, a c.r.t. donated by Phillips, was a fitting prize for such a good effort.

At first the day looked like being a real beam reducer with winds of 40 m.p.h. or so on the morning of the Field Day, but things calmed down and the final judgment was "a good time was had".

The scramble was won by Dave 2AWZ with the ether crusher while the early 2 mx hunt, only other event of the morning, was a victory for Harold 2AHA. In the afternoon, things really did an about face when the Susan 2BSB—also a visitor—using a 200 watt transistor portable, came in first in the 7 meg. hunt. To say that the rig was carefully and cunningly concealed would be boasting I suppose, but it sure was wet in the water! I am led to believe that Susan's car is available for scrap at the call book address. Oh those thickened boxes! I choose the nastiest roads. In the afternoon 2 mx hunt, known as the Strongarm 500, first in was Harold 2AAH in 14 minutes! Remarks as to vehicle availability.

For those wishing to remain on the ground, there were two quizzes. The both were taken at the home of the household, Tony 2ZC, the technical section in a play off with Max 2MP, with Marcia being the best in the ladies' section. And to cap it all, Tony also had been presented with the V.H.F. prize, the night before! Watch him lad! Best performance of the day went to Harold 2AAH and even the lady visitors were well catered for. Mrs. Pierce 2APQ being the holder of the lucky number. As for the lucky get, it was, or is at the present, me, for I have the prize of two 80% for the holder of ticket P52. Please come and claim them—they are so tempting.

In addition to all the festivities there were some items that need to be seen or heard as well. Arie 2AVA had some very compact equipment for the ducktalkers. A top band Westlake Club and some clown in a beater.

CLOSING DATES

FOR COPY

DECEMBER 1964 ISSUE:

8th NOVEMBER, 1964

JANUARY 1965 ISSUE:

1st DECEMBER, 1964

FEBRUARY 1965 ISSUE:

NO NOTES, etc. See

Page 15 (Publications

Committee Reports)

up Fiat supported under a monstrous whip did some mobile working on this band. You won't believe it, but Frank says it'll be even better next year.

Thanks to all who helped, especially Kevin, Norm, Chris, Bill, Varley and any others I've missed—you're the chaps who made it what it was.

It seems that that little bit has taken up all the space that Hon. Editor will allow, so it remains only for me to say that you must not miss the next meeting. November 6 is the date, and the place is room 6 in the classroom block at the Tighthead Tech. We are to be treated to an unusual and most revealing lecture on Microminimisation, to be given by Col. H. J. Trick, head of the Military Products Division of A.W.A. He is bringing some new equipment to show the boys and this will be the first showing to the public in Australia we do. So don't miss it, whatever you do. We start at 8 p.m.

I'm a bit unhappy really. All these lucky chaps on holidays, Bill 2XT in Japan, Lionel 2CS here, and everywhere, and—no I promised I wouldn't say the other one. Still I suppose there are compensations, I'll not miss the meeting. By the way, did you know that our Arie has a new name—you ask him. And that two of our members are waiting for a long letter in the affirmative from the examinations branch. Best of luck chaps. 73, 2AXX.

VICTORIA WESTERN ZONE

Quite a nice gathering took place in Nhill on Sunday, 27th September, when we held our Annual Convention. About 30 members and their families braved the rather wintry conditions. We were sorry that because of the drying weather the flying group of the South Western Zone were unable to be with us. However will order a day to suit next year. Don, 2YL and party.

Officers elected for following year were: President, J. W. Edmonds, 3AFU; Vice-Presidents, W. A. D. Giles, 3ADS; W. K. Semmler, 3ATS; Sec. and Treas., W. J. Kinsella, 3AKW, re-elected. A special committee was formed to organise W.I.C.E.N. activities. They are 3AFU (Clear Lake), 3AKW (Lubeck), 3ADS (Glencorch), 3AOS (Telangattuk), 3ATN (Birchip).

The s.s.b. chappies seem to be the most active DXers. Harry 3ZX is now testing out a super quad with encouraging results. Ex-local, Chas. VR1B, at present in the Gilbert Islands, is heard quite often on the DX bands and I believe will be back this way towards

the end of next year. Merv, 3AFO and family have just returned during their holidays which were split between Mildura and Canberra areas. 73, 3AKV.

QUEENSLAND

Last month things were very quiet on the home front news wise. Therefore I think it is about time that I declare this advertisement month of yours. I think the following news is aimed at those who are unable to make the Sunday morning news broadcast from 4WI.

Whilst the sign of Queensland's progress, it is necessary that this Division progresses also. The VK4 Division does not intend to stand still however. With this in mind, we solicit all interested persons to join our ranks. If someone comes to your QTH inquiring about Amateur Radio, then invite him to become a member of the I.W.A.

You may wonder why news of your particular district does not come over 4WI and maybe you think we are biased about your locality. This is not so. The only reason why we do not put your district's news on the air is that no one in your area can be bothered to send any news. We welcome news, both personal and general, about the doings of Amateurs, Clubs, etc., from all parts of the State.

Therefore all clubs take note! Get your public relations officer to send us the news from your club. In fact, anyone is welcome to put any news sent to me to 6383, G.P.O., Brisbane. It will be broadcast.

It was inadvertently stated in the September edition of "A Wide Bay" that the sign long to the Bundaberg Amateur Radio Club. I am sorry if the statement misled anyone. The sentence should have read that 4WQ is the official sign of the Wireless Institute of Australia, "Wide Bay and Burnett Branch" and that the station is situated at the club house on the Bundaberg Peninsula. I hope things are correct now. Anyway, has the station been heard yet? Notes from Club Bay give it no mention this month.

New bands are back! During the last six months, something like fifty thousand words of news have been broadcast over 4WI. Sixty radio stations, Queensland Amateurs have been active, but there is still the feeling of some that the bands could be used even more.

Well I hope you didn't mind those direct broadsides, but they have to be said every now and then if this Division is to keep to its policy of progress.

YOUTH RADIO CLUBS

Discussions with a number of section teachers during a vacation school at the University of Queensland allowed a lot of publicity to be given to the Youth Radio Scheme. It seems that the Pomona Rural School, under the guidance of Gerth Baker, will form a club. Harry Mitcham, of the Mount Isa High, is keen and Ken Keith from Redcliffe High is at long last getting into the picture. Other possibilities that we have heard of include Yeronga State High, Gympie Christian Brothers, and a G.P.S. School, Gregory Terrace.

Cairns High is going along very quietly and it is being said that they are going to come on with a few hundred watts of s.s.b.—what a joy. Alex, a big news of the month is 4PE, Padua College. They made their first contact with 4WI during last month and then they worked the other two licensed youth radio clubs, 4BP and 4DS, at the time of writing, a Y.R.S. morse contest was in view. Club champions from the schools will probably compete against another club in the Y.R.S. champion. Both under 15 and over 15 divisions will be contested.

Specimen papers for junior certificates are in the process of duplication and Harry 3ZBG should have puzzled the lads in Gympie with them by now. A completely new set of conditions for the elementary and intermediate has also arrived. Before leaving this subject, we wish to state in print that the VK4 Division is very lucky indeed to have a youth radio organiser, and that the work he has applied himself wholeheartedly to the job of interesting schools in the scheme, and the results he has achieved in the short time are truly astounding. Keep up the good work Charlie. It is hoped that by this time next year, your list of clubs will have increased fourfold at least.

Perhaps if our hopes are realised we will no longer be discussing the s.w.r. of the feeder but rather the covalent or rather bonding mechanism exhibited by ammonium bi-fluoride.

GENERAL NEWS

Recently Alf 4OL, who is the voice behind 4WI, took his annual holidays. The trans-

missions on Sunday mornings were made from a number of stations during the time Alf was away. We wish to thank those stations for making themselves available and we hope that the news was heard at your QTH at its usual strength. Alf has taken on a new job and this should allow him to be around at night for a change. He will probably be able to attend the monthly meetings since he will now be working during the daylight hours and not at night as previously.

Technical difficulties were experienced with the production of "QTC" for September. This is another way of saying that the typesetter for the cutting of the stencils refused to operate satisfactorily. As the production of "QTC" is a voluntary effort, some delay was inevitable.

The September general meeting was not attended due to the fact that "QTC" had not been published. Even the lecturer for the evening did not arrive. Inexplicable! Lecturers were drawn from the body of the meeting. Paul Rodokoff talked about his experiments with Q multipliers and then Jim 4FR gave an interesting discussion on transformerless power supplies. Paul again arose and warned of the hazards of using such a design. Claude 4UX took the floor and gave a detailed account of activity of the northern boys. 73, 4ZBD.

SOUTH AUSTRALIA

The monthly general meeting of the VK3 Division for September was held as usual in the club rooms to a well-below average gathering. The subject for the evening was "Spurious Radiations". Rob had been called upon at very short notice to fill in for the evening but he did not mind. He gave his copious notes on the subject plus a wealth of practical knowledge gained in the field and at various locations and call signs. Fortunately he did not start off almost immediately with chalk and blackboard, naturally letting me out of any further concern of the lecture, for which I thank him. He covered a lot of ground, that judging by the rapt attention of those present, and the nature of the questions asked, and also perhaps to make it possible for Amateurs to live with nearby fellow Amateurs in peace and contentment and thus stem up larger segments of the bands for operation by these same nearby Amateurs.

The vote of thanks to the lecturer was ably, and somewhat humorously, given by Gilbert 5GX, and the applause was again sufficient indication of a good job performed by Rob. For some strange reason, owing to the powers that be, the meeting was closed at the conclusion of smoke-oh without any of the usual business of the meeting being held, either Federal or General, despite the vocal objections of grumpy old Parsons 5PS, who was amiably disposed of by the President (Phil 5NN), apparently the secret enjoyment and satisfaction of all present. Anyway, I should care, at least I got it into the minutes.

Noticed the Rev. White, from the Central Methodist Mission, present at the meeting as a visitor. He was asked if he was married, an associate member later on. I checked up with him during smoke-oh as to his reasons for joining so late in life. He told me that he is now somewhat self-satisfied and is up the threads of short wave listening, a hobby that he has always wished to participate in but he will now be able to do so and will fully enjoy. He is to be congratulated on his decision, and who knows, one day in the future he might have his own call sign although I suggested that to him he be modestly thought not.

Understand that Joe 5JT is playing around with reducing the noise level of his station, emphasis on 7 Mc. He is still getting around on a stick, but is as lively as a cricket, although I am sure that he will have his own call sign climbed up that beam at his age. Nice to hear about you Joe.

Also heard that Pat 5KM, from Victor Harbour, interested in the Swiss Quad, the

TECHNICAL ARTICLES

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swears that the walls and mirror were moving one night. This could have been caused by something else however.

Activity on the various bands is very patchy, but one can hear quite a number of signals on 80 most evenings. This will probably change however with the approach of summer and its problems for this band. Twenty metres has been coming to life in the evenings of late with signals coming from Europe and India. American signals have also been coming in quite well.

Any country member who may have an item to be submitted for the agenda at next year's Federal Convention should submit it

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as early as possible so that it can be processed and ready early. This does not only apply to country members, but also to any members.

Once again this month information has been very scarce and I would very much appreciate anything of interest being passed on to me.

I believe that if anyone would like a demonstration of the concerning about of Freeway, they should try Geraldton for a likely place. However, would suggest that you use a different story than the one used by one of the members.

Bernie 6KJ was travelling up to Perth and was using his Swan mobile and the signal on 80 was excellent. I believe many more Amateurs have or are building up mobile gear and we should hear more mobile signals in the future.

Your Council will be very pleased to receive any suggestions which you may put forward. If you have any complaints we would like to hear these also.

This seems to be all for now, chaps, so till next month, 73, Roy 8RY.

TASMANIA

It is strange how little information a circle starts out with when writing for this column (this scribble, anyway), but, after a ten-minute QSO via 600 ohms with a certain person who seems to keep his ears open all the time, I think I've just about got enough to make a showing.

Quite a few well known call signs have been heard on the air at late, some of them after quite considerable periods of silence. Bob 70BD is back from VK4 after an absence of about 10 weeks. "Up there to work," so he said, but I notice he picked the winter months to go. Another "long time no hear" signal is from Brian 7BH, who I am told is back on speciously for the Jamboree, but we're hoping he will continue to be heard not infrequently even after the sale Jamboree.

Another one is Tiny 7JD whose signal at my QTH is in keeping with his physique—believe he has his stick pushed now, so should hear more of him now.

Doug TAB has moved from New Norfolk to Oatlands in the course of his employment, so some I.D. signs should be heard from the lower midlands when he gets his antenna farm organised.

Crosby 7CW has not been sighted at the time of writing, but if he is going to schedule he should be home in about a week from now—probably got himself so much new gear they will send him on special.

I've noticed on the round-up after the Sunday broadcast that the broadcast officer often has an ask for a repeat call from some side-band station that haven't quite given him time to switch the product detector in, so what about a little longer call you side-banders!

After quite a few weeks of trying a sure path has been found by Eddie 7ZBM out of Tarrareah into Hobart on 2 mks. been getting 5 by 8 to 9 reports both ways, good work Eddie. Hope to work you myself soon.

Notice the Northern Zone President (Denny 7DK) has gone s.s.b. Heard him on 8.5 Mc.

Don't know as yet whether he is using it on v.h.f. or not. Knowing Denny, I reckon he'll try it this coming season.

Incidentally, the planned "have quite an auction (American)—as in American tea—at the Hamfest this year. Proceeds for the I.T.U. fund. So start looking out suitcases, etc. if other fellow might like to buy, and you're willing to donate! 73, Geoff 7ZAS.

HAMADS

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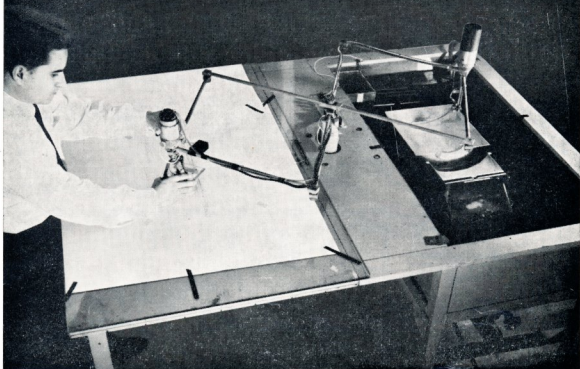
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